

No. 11054

IN THE

United States Circuit Court of Appeals  
FOR THE NINTH CIRCUIT

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INTERNATIONAL CARBONIC ENGINEERING COMPANY,  
*Appellant,*

*vs.*

NATURAL CARBONIC PRODUCTS, INC., a corporation,  
GEORGE PEPPERDINE FOUNDATION, a corporation, L. H.  
POLDERMAN, W. L. BENSON and C. B. BENSON, indi-  
vidually and as a co-partnership doing business under  
the fictitious firm name and style of NATURAL CARBONIC  
PRODUCTS,

*Appellees.*

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APPELLANT'S REPLY BRIEF.

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The brief filed on behalf of appellees, consisting of 69 pages, does not raise any other defenses bearing upon the validity or infringement of the patent in suit other than the defenses which were sustained by the district court and which were fully discussed in appellant's opening brief. In fact appellees' brief almost slavishly follows the decision of the district court which has been printed as Volume V of the transcript of record. Appellant in its opening brief by constant reference to the record pointed out to this court the fundamental errors which the district court had

fallen into in deciding this case and established that the sustaining of said defenses was error.

Appellees, however, in following the court's decision could not resist the temptation of including statements to support the decision which are not borne out by the record and in many instances which are not even referred to therein. Appellant's brief, therefore, will be primarily limited to pointing out such erroneous statements and conclusions in order that this court may not be misled thereby.

It is significant in appellees' brief that they have not in any manner endeavored to refute the commercial success which has been obtained by the vertical apparatus of Fig. 5 of the patent in suit and to which the claims in issue are directed. It is further significant that upon the question of infringement appellees admit that all of the elements of the claims in issue are present in the apparatus claims in issue with the one exception as to the interpretation of the phrase "closed chamber" etc. and that with respect to said phrase the appellees admit that only five percent of the gas which is in the chamber of Fig. 5 is allowed to escape to the atmosphere during the latter part of the period within which the carbon dioxide is formed into a solid and compressed within said chamber (Appellees' Brief p. 67).

At page 2 of appellees' brief and frequently thereafter appellees have endeavored to persuade this court that the pertinent findings of fact pertaining to the defenses sustained were not properly raised or presented in appellant's brief in accordance with the rules of this court. Although there are thirty-one specific findings of fact, reference to the record [I. 71-82] will readily disclose that the first fifteen findings have either to do with the counterclaim

of appellees, which is not before this court, or with facts pertaining to the question of venue and jurisdiction. Beginning with finding 16, appellant has specified all of said remaining findings with the exception of findings 17, 22, 25, 26 and 27. Finding 17 refers to the file wrapper and although said finding is not inclusive as to what is contained therein it is substantially correct. Finding 22 pertains to the Martin snow tank. Said finding does not include all of the operations pertaining to the snow tank, which are set forth in more detail in appellant's brief page 12 *et seq.* under the heading "Prior Commercial Apparatus." Finding 25 pertains to the method claims in issue. Admittedly the solidification of carbon dioxide under triple point conditions was not disclosed in the patent in suit. It was only incumbent upon the inventors to disclose one means, *i. e.* the snow method, whereby carbon dioxide could be formed in the single chamber of Fig. 5 within which the carbon dioxide was first formed in a solid and thereafter pressed into blocks. The question of whether either claim 38 or 39 is entitled to a range of equivalents which would include the solidification under triple point conditions is an entirely different question which will be hereafter discussed under the question of infringement. Finding 26 was not included in the specification of errors because generally speaking the statement therein is correct. The fact that solidification of carbon dioxide and its compression into blocks was disclosed in prior art patents does not invalidate the claims in issue or avoid infringement as was clearly pointed out in appellant's opening brief. Although dealing with the solidification of carbon dioxide, the patents are not pertinent to the question of infringement or validity of the claims in issue as was clearly pointed out in said brief.



Reference to page 7 of appellees' brief discloses the frequent reference to a discussion of the pertinent findings of fact which were specifically referred to in the specification of errors (Appellant's Brief p. 21). Finding of fact 31 is obviously a finding upon the question of infringement which is referred to in specification of error 8 and which is thoroughly discussed by appellant in its brief pages 101-117, inclusive, and is further covered by appellant's discussion of prior art patents (Appellant's Brief pp. 31-42) and in connection with the alleged Martin prior use (pp. 42-68, incl.). It is obvious, therefore, from appellees' own compilation of appellant's specification of errors in their brief page 7 that appellant has properly presented to this court and has discussed the specification of errors which raise the issues of whether the defenses found by the trial court to invalidate the claims in issue and to avoid infringement should be sustained by this court.

### The Patent in Suit.

Appellees in their brief, beginning at page 8, and in their discussion of the patent in suit, have attempted to completely misconstrue the statement of the witness McLaren on page 1033 of Vol. III. McLaren was called as a witness by appellees, who are bound by his testimony as specifically stated by the court at the time that said witness was called, and testified to the effect that there had been included in his sole application inventive subject matter of which he was not the sole inventor but which was subject matter of which he was the joint inventor with Cole. The witness pointed out in his testimony the specific subject matter which was his sole contribution, which did not include the subject matter of the claims here in issue.



McLaren's statements dealt solely with the question of joint inventorship and it is significant that this application was subsequently abandoned in view of the fact that the joint application of Cole and McLaren was thereafter filed. The witness made it clear that all of the subject matter except that specifically described by McLaren was the joint invention of McLaren and Cole. Upon direct examination [III. 1023] in response to a question by the attorney for appellees, he stated:

“A. No. This arrangement was all thought out together, with the exception of the apparatus I have mentioned.”

The record is clear, therefore, that McLaren at no time made any admission that he was the sole inventor of the claims in issue and the statement in appellees' brief, page 9, that McLaren testified as he did because of his knowledge of Martin's prior use is without support in the record and is unjustified.

Although there is no evidence in the record to support the contention that appellant's predecessor suppressed and concealed the Martin application of December 6, 1926, nevertheless appellees again raise this issue in their brief page 9. Reference to the Martin application will show that it is not directed to the vertical apparatus of Fig. 5. In view of the fact that the Cole and McLaren and Martin applications were controlled by the same party, it is not unreasonable to assume that the attorneys for said party after a determination of the facts decided that Cole and McLaren were the first inventors and that Martin was not. In this respect it is significant that Martin made no attempt in his testimony to go back of his filing date of December 6, 1926, in so far as the disclosures of said

patent are concerned. Furthermore, patent 1,887,692, constituting defendant's Exhibit EE-24 and appearing at page 1523, Vol. IV, is a division of said application of December 6, 1926, as clearly appears on said patent 1,887,692. An examination of the drawing thereof will disclose that the tamping means, which are completely eliminated by the vertical apparatus of Fig. 5, was an essential feature of said invention.

In further discussing the patent in suit, appellees discuss the exhauster 81 and endeavor to convince this court that said exhauster should be included in the claims in issue. There is no reference to said exhauster in any of the apparatus claims. In addition there is no reference to said exhauster in method claim 38. The only possible way in which the exhauster could be included in method claim 39 would be for this court to hold that the definite pressure specified therein is the pressure maintained by the exhauster. Referring to the patent in suit [Pltfs. Ex. 2, IV. 1321, at p. 1323], claims 3 and 5, for example, which are not in issue, refer to the exhauster 81. The fact that the exhauster is included in said claims has no bearing whatsoever upon the claims in issue inasmuch as this court is familiar with the fundamental rule of law that each claim constitutes a separate invention.

The exhauster, furthermore, has nothing to do with the question of whether the closed chamber, which is referred to in the claims in issue, is actually sealed from the atmosphere. As pointed out in appellant's opening brief, the purpose of closing the chamber within which the carbon dioxide is solidified is to prevent air from entering the chamber and injuriously affecting the operations. The chamber is effectively sealed insofar as the claims in

issue are concerned if atmosphere is prevented from entering therein and there is no contention by appellees that any air enters the apparatus of Fig. 5 or the alleged infringing apparatus during the solidification period or during the compressing period until the chamber is opened for the purpose of removing the completed blocks and at which time the entrance of air is not injurious to the operation. The appellees would have this court place a construction upon the words "closed" or "sealed" which would nullify the invention contained in the claims in issue. Appellees in their brief, page 12, have set forth the phrases from the claims in issue which pertain to a closed or sealed chamber. Claim 34, which is typical, and which specifically refers to a vertically disposed apparatus, calls for "sealing the chamber from the atmosphere." This is exactly what is done by the vertical apparatus of Fig. 5 which prevents atmosphere from interfering with the operations and which is also done in the infringing apparatus of appellees.

In their discussion of the patent in suit, page 15, appellees make the assertion that the claims of the patent in suit do not exclude tamping or the repeated compaction of the solidified carbon dioxide. This assertion is made because appellees recognize that the elimination of tamping in the operation of the vertical apparatus of Fig. 5 was an important step in the art. Tamping was an essential part of the snow tank operation. The tamp which was used in said operation was a hand tamp such as shown in Plaintiffs' Ex. 6 [IV. 1330]. This hand tamp was used to expel air and other injurious gases from the solidified carbon dioxide. Certainly the hand tamp shown in Ex. 6 was not necessary in connection with the operation of the vertical apparatus of Fig. 5. It is only necessary for this

court to look at the vertical apparatus of Fig. 5 in order to be convinced that the tamping which was eliminated in the operation of said apparatus had no reference whatsoever to the operation of the hydraulic platens which were included in said apparatus. The appellees in making such contention are not supported by the record.

### **The Drawings of the Patent in Suit.**

Appellant in its opening brief, pp. 9-12, and in its discussion of the vertical apparatus of Fig. 5 beginning at p. 69 and extending to p. 89, pointed out the distinction between the horizontal structure of Fig. 2 and the vertical apparatus of Fig. 5. Appellees, although they have not refuted any of the statements made therein relative to said differences, have endeavored in their brief, pp. 16-23, to convince this court that because the two structures shown in said drawings were to be used with the same piping that they were, therefore, substantially the same structures. The fact that the piping shown in Fig. 1 of the drawings can be used with both the horizontal apparatus of Fig. 2 and the vertical apparatus of Fig. 5 has no bearing whatsoever upon the question of the construction of said apparatus and the operation of the same. This was the error which the trial court fell into in making its finding 16. The claims in issue are directed to the vertical apparatus of Fig. 5 and it is for that reason that appellant in its brief has emphasized this fact. Reference to said claims will show that all of said claims specifically call for a single chamber in which the gas is solidified and pressed. The only apparatus meeting the terms of said phrase is the vertical apparatus of Fig. 5. Reference to Fig. 2 will show that it has an upper chamber in which the gas is solidified and that thereafter the solidified gas is trans-

ferred to the lower chamber which is designated 60 in the drawings. The fact that carbon dioxide can be formed into blocks of commercial size in the apparatus of Fig. 2 has nothing to do with the question of the construction or operation of the vertical apparatus of Fig. 5.

Appellees, recognizing the difficulty that they are in, have endeavored in pages 20 and 21 and the page of drawings interposed between, to show how the horizontal apparatus of Fig. 2 could be transferred or changed into the vertical apparatus of Fig. 5. In a pressing operation it does make a difference whether when working with a substance such as liquid or solid carbon dioxide one lets gravity hinder or help the operation. As pointed out in our opening brief, gravity hinders the making of a uniform block in a horizontal press and materially assists in a vertical press. Gravity prevents the use of the horizontal press in making the triple point blocks of uniform density for the reason that the entire structure would be filled with liquid which is under approximately 60 pounds gauge pressure and which is immediately transposed to solid below said pressure. It would be substantially impossible to operate the hydraulic platens or to form a commercial block of carbon dioxide.

Furthermore, in their genesis of a vertical press from a horizontal press it is obvious that Figs. 1 and 3 will not function with the working parts out of the machine as shown. The apparatus will plug and cease to operate. Furthermore, in Figs. 4 and 5 the apparatus will not operate as intended as there is no expansion space or chamber above and the structure will soon clog up and become inoperative. The result is that when Fig. 5 is reached it can only be operated in a vertical position. This court is



fully familiar with the fact that by the use of drawings and with appropriate changes almost any initial structure can be changed into an entirely different apparatus.

In connection with their discussion of Figs. 2 and 5 appellees make the contention on page 21 that the interference in the Patent Office between the Cole and McLaren patent and the application of Reich has a bearing thereon. One of the counts in issue in said interference, *i. e.*, count 6, is set forth. In reading said count the court will note that this count reads on the horizontal apparatus of Fig. 2 which, in addition, calls for the inclusion of *rotary scrapers* in the expansion chamber. Appellees' counsel, if they are familiar with the interference proceedings, are aware that broader counts than count 6, *i. e.*, 1, 2 and 4, and which did not include rotary scrapers were awarded to Cole and McLaren on the basis of testimony on behalf of Cole and McLaren. The decision of the Examiner of Interferences in Patent Office Interference 59938, which includes count 6, is in evidence as defendant's Ex. RR [IV. 1581-1591, incl.], and reference to the counts and a reading of said decision shows that the counts are directed to the horizontal apparatus of Fig. 2 and that the testimony in said interference bore out the testimony of Cole and McLaren in this case that they had conceived the subject matter prior to Martin's filing date of December 6, 1926.

The reason that Cole and McLaren were not awarded count 6 or counts of a similar construction was because insofar as the rotary scrapers were concerned Reich was

found to be a prior inventor. This court is fully familiar that in counts of interferences as well as in claims words of limitation, such as "rotary scrapers," are limitations which may distinguish the claim containing the same from claims of a broader scope. The question of whether the Patent Office should have allowed this claim over the broader claims allowed to Cole and McLaren is not before this court. However, it is clear that the fact that Reich was allowed count 6 over Cole and McLaren has no bearing whatsoever upon the question of the validity or infringement of the claims in issue which are directed toward the vertical apparatus of Fig. 5.

### **Findings of Trial Court.**

Appellant is fully aware, as stated by appellees in their brief, pp. 22 and 23, that findings of the trial court should be given proper consideration. Appellees' heading "Findings of Trial Court Should Not Be Disturbed," however, is not a correct statement of the law. (*Cf. J. S. Tyree Chemist v. Thymo Borine Laboratory*, 151 F. (2d) 621, 624 (C. C. A. 7th); *Murray v. Noblesville Milling Co.*, 131 F. (2d) 470, 474 (C. C. A. 7th).) It is appellant's position that the record does not support the findings and that the lower court obviously was mistaken in sustaining the defenses presented. In its opening brief appellant at length pointed out the reasons why the findings of the lower court could not be sustained and appellees in their brief have failed to point out to this court wherein said reasons, which were supported by the record, did not sustain appellant's contention that the court erred.



The witnesses Cole and McLaren, who were the inventors, were present at the trial. McLaren was called only by the appellees, who were bound by his testimony. Mr. McLaren is not an employee or officer of the appellant. Mr. Cole, who is an officer of the appellant corporation, testified at length and frankly. Although his story is at variance with that of Martin and Hood, particularly as to the facts pertaining to the Martin alleged prior use of which he testified he had no knowledge, the trial court did not point out any specific testimony given by Cole which the court considered not to be in accordance with the established facts. There is no finding by the trial court that Martin disclosed the alleged Martin machine to Cole and the only finding with reference to a disclosure to McLaren is in finding 19 that the disclosure was at least as early as October 1926, which is admittedly subsequent to the filing of the McLaren sole application which was subsequently abandoned. Furthermore, as pointed out in the opening brief, p. 53, the record conclusively shows that insofar as the date when Martin moved to the General Carbonic plant was concerned that Martin was incorrect by one year at least and that this incorrectness is proven by appellees' own witness Eppenbach.

The court's remarks in its decision relative to the testimony of Martin and Hood on the one hand and Cole and McLaren on the other is only another reason why the court fell into error in considering the defenses sustained by it.

### Finding 23 Emphasizes the Invention of the Patent in Suit.

Appellees in their brief, pp. 26-30, refer primarily to finding 23 in support of their contention that the judgment of the trial court as to invalidity should be sustained. Finding 23 is a statement of the knowledge of the prior art. It is significant in view of said knowledge that those working in said art, including Martin, were unable to devise the vertical apparatus of Fig. 5. Not only did the person skilled in the art have this knowledge available but he also had the knowledge of the snow tank, which was disclosed in defendant's Ex. EE-20 [IV. 1500]. There is nothing in the factual statement of finding 23 which would lead one skilled in the art to construct the vertical apparatus of Fig. 5 and the conclusion at the end thereof, which is specifically urged as error and which appears as specification of error 3 (Appellant's Brief, p. 21), does not follow from the facts specified therein. In its opening brief the appellant covered this particular subject at length. The fact that certain of the findings, including finding 23 with the exception of the latter portion thereof, are unchallenged is of no assistance to the appellees upon the question of the validity of the claims in issue.

### Testimony of Plaintiffs' Expert.

In their brief, pp. 31-33, appellees make reference to the testimony of Dr. Jones, and particularly to the finding of the court finding 20. Appellant (p. 70) covered the testimony referred to on said pages of appellee's brief and by reference to the record showed that Dr. Jones in giving his testimony was referring to the structural elements and the novelty *per se* of the same. As

admitted in its bill of particulars, appellant does not claim novelty in any specific element of the claims in issue. The claims are combination claims and the decisions of this court set forth in appellant's brief, that the invention must reside in the combination, are not controverted by appellees. That Dr. Jones made no admission that there was no invention in the claims in issue is apparent from his testimony [III. 1173]. In stating what was the invention in the claims in issue, Dr. Jones testified as follows:

“To sum up, to my mind the soul of the invention is the elimination of the tamping step and the discovery that it is possible to short-circuit that, and without either a reciprocating plunger or a scraper, stirrer or other device to change the configuration of the snow, that you can deposit a mass of crystals, press them right there where they have been deposited, take them out and have a finished product. That is all I can see to it.”

The court in making finding 20 failed to realize that Dr. Jones was referring specifically to structural elements in stating what elements were new and was not referring to the claims as a combination of elements. When he was questioned as to the combination, he made no admission that said combination was old in the art but on the contrary testified to the invention which resided therein and which in his opinion was new and patentable.

As heretofore stated, the fact that there are other claims in the patent in suit which are not in issue and which cover said structural elements in combination with other elements has no bearing upon the question of validity of the claims in issue which do not include any of said structural elements as a part thereof. As previously

pointed out, the error of the court in making finding 20, which is clearly unsupported by the evidence, is only another indication of the many errors into which the court fell in rendering its decision and making its findings.

### **The Claims in Issue Comply With Revised Statute 4888.**

Appellees in their brief, pp. 33-41, are endeavoring to convince this court that the lower court was correct in making its finding 21. Said finding was discussed in appellant's opening brief, pp. 90-95. Appellees do not, in discussing said finding, endeavor in any way to controvert the decisions of the supreme court which are referred to in said pages, which are to the effect that the specifications are addressed to those skilled in the art and that if one skilled in the art with the knowledge of the prior art is able to construct and operate the structure of the patent in suit that the provisions of § 4888 have been sufficiently complied with. The decisions of the supreme court in *Mowry v. Whitney*, 20 L. ed. 860, and *Carnegie Steel Co. v. Cambria Iron Co.*, 46 L. ed. 969, 986, which have been quoted with approval by this court in numerous cases, including *Fullerton W. G. Assn. v. Anderson-Barngrover Mfg. Co.*, 166 Fed. 443, 449, sustain the position of appellant that the specification and the claims are sufficiently definite when addressed to one skilled in the art and that it is not necessary to include as a part of said claims the factual elements such as are covered by finding 23.

The fact that the patent does not teach what size chamber to use, what size inlet to employ, what size outlet to employ, etc., is immaterial upon the question of sufficiency of disclosure when such factors are known in

the art and the other elements of the claims are sufficiently disclosed to enable one to construct and operate the structure.

Dr. Clapp in his testimony [III. 871-874] stated that such elements and factors were either included in finding 23 or were well known in the art. Dr. Jones testified to the same effect [III. 1103-1112]. Appellees in their brief, p. 4, misinterpret the testimony of Dr. Jones in stating that he admitted that a man skilled in the art possessed all of the knowledge necessary to build and operate a press as claimed in the patent in suit. Dr. Jones testified that given the knowledge of a man skilled in the art that he would be able to build and operate the vertical apparatus of Fig. 5 which is covered by the claims in issue. There was no admission by Dr. Jones that a man skilled in the art was able to build such a structure merely because he had said knowledge because the record clearly shows that those skilled in the carbon dioxide art had never constructed an apparatus such as Fig. 5 prior to the date of the invention covered by the claims in issue. Appellees have quoted on page 37 the testimony of Dr. Jones relative to the present commercial practices. The quoted testimony of Dr. Jones, which is reproduced at p. 37, is part of testimony taken from pp. 287 and 301, Vol. I. In testifying it is evident by the reading of the quoted testimony and appellees' brief that Dr. Jones was referring to the modern practice of utilizing the vertical apparatus of Fig. 5 and this particular portion of the testimony should have been set forth in heavier type rather than the portion which appellees chose to attract the attention of this court. Dr. Jones in said testimony was undoubtedly referring to the fact that the patent in suit and the specifications thereof made no



reference to triple point operations or the utilizing of the structure upon the various methods of solidifying carbon dioxide which are covered in his book on the subject of carbon dioxide. Dr. Jones testified that the vertical apparatus of Fig. 5 could be used in all methods which he knew for solidifying carbon dioxide. It was only incumbent upon the inventors to show one preferred method of solidification and they chose to show the snow method. The fact that the specifications do not disclose other methods is immaterial upon the question of the sufficiency of disclosure.

### **Prior Patents.**

Appellant in its opening brief, pp. 30-41, discussed the prior art patents which are relied upon by the appellees. Appellees in their brief have not controverted appellant's statements as to the disclosures in said prior patents. Furthermore, they have not controverted the fact that there are changes necessary in all of said patents in order to change the same into the vertical apparatus of Fig. 5. The patents relied upon by appellees in their brief, with the exception of the patents to Flemming and Julius, defendants' Ex. EE-8 and Ex. EE-9, respectively, are patents which have no bearing upon the manufacture of solid blocks of carbon dioxide. The patents to Flemming and Julius are admittedly patents pertaining to the manufacture of small sticks of carbon dioxide for use primarily in surgery and the appellees have not made any contention that the combination of elements of the claims in issue are contained or disclosed in either the Flemming or Julius patents.

In order to endeavor to invalidate the claims in issue, the appellees are relying upon patents which have no bearing on the carbon dioxide art.

The quotation from the testimony of Dr. Jones appearing on page 46 is no admission that the Stastney structure contained the elements of the claims in issue. A reading of said quotation shows that Dr. Jones' answer was predicated upon the fact that the question was answered leaving out a considerable number of factors, one of which was the changes necessary to produce a commercially dense product. The demonstration by the appellees in the court room with a structure which admittedly was not built in accordance with the disclosures of the Stastney patent showed that even with the changes made the Stastney structure was not capable of producing a commercial product. The quotation of the testimony of Dr. Jones at the bottom of page 48 of appellees' brief is taken from a portion of Dr. Jones' testimony on page 1086 of Vol. III, which reads as follows:

"A. I am afraid I am confused. I don't believe I can answer any of these questions if that is the basis, because if you neglect whether the solid carbon dioxide is of commercial quality, or not, you can make solid carbon dioxide in any of these prior art devices; that is, you can expand some snow in any of these chambers."

It is apparent that Dr. Jones in giving this answer was referring to the fact that the prior art devices could be used to expand snow in the chamber but that such expansion has nothing to do with the question of whether a commercial product can be made therein or whether the elements of the claims in issue are contained in said structures. As stated by the supreme court in *Potts v. Creager*, 39 L. ed. 273, 279:

"Indeed, it often requires as acute a perception of the relations between cause and effect, and as much



of the peculiar intuitive genius which is a characteristic of great inventors, to grasp the idea that a device used in one art may be made available in another, as would be necessary to create the device *de novo*. And this is not the less true if, after the thing has been done, it appears to the ordinary mind so simple as to excite wonder that it was not thought of before."

### The Claims in Issue Constitute Invention.

Appellees, at pp. 49, 50, have baldly stated that the patent in suit lacks invention in view of the state of the art without discussing the specific art upon which they rely. Appellant in its brief, pp. 69-89, incl., fully discussed the reasons why the claims in issue constituted invention and by frequent reference to the record. The state of mind of those working in the art is well exemplified by the patent to Martin 1,887,692, defendants' Ex. EE-24 [IV. 1523], the same Martin who testified on behalf of appellees, wherein he stated that the production of blocks of dense, tough, structurally sound carbon dioxide could not be accomplished by merely one direction pressure applied by a piston which constituted one of the walls of a molding chamber but that in addition it would be necessary to use a tamping operation for the purpose of expelling the gas from the solid carbon dioxide. The application upon which this patent issued was a divisional application of the abandoned application of Martin filed December 6, 1926. The particular divisional application

was filed on December 15, 1928, and as of that date, which was subsequent to the filing date of the application for the patent in suit, Martin was still under the impression that tamping was an essential part of any operation to produce a dense commercial block of solid carbon dioxide. This statement in the Martin patent is an indication of the thinking of those skilled in the carbon dioxide art and such thinking caused Cole and McLaren to first build the horizontal apparatus of Fig. 2 before taking the apparently wild step of constructing the vertical apparatus of Fig. 5. McLaren in his testimony discussed the attitude of his company toward the vertical apparatus by stating as follows [III. 1027]:

“A. Yes. Very little thought was given to this, because it was such a wild idea, we were afraid of it.

The Court: By ‘this’?

A. This vertical machine. In other words, the company did not want to have anything to do with it. They said, No, we are afraid of that thing.”

This attitude of the employer of Cole and McLaren is in accordance with the attitude of the whole carbon dioxide art and it was a radical step for the inventors to devise the vertical apparatus of Fig. 5 and to construct the same. The carbon dioxide art can be truly thankful that Dr. Jones was available to watch the operations of the vertical apparatus of Fig. 5 in the latter part of 1928 and to immediately realize that it was a universal machine for the production of solid carbon dioxide.

### **Appellees' Right to the Use of Prior Knowledge.**

Appellees in their brief, p. 51, have emphasized their right to the use of prior knowledge in the public domain. The question is not whether the appellees have the right to the use of the elements of the claims in issue *per se* but whether they have the right to use the combination of said claims. Appellees are attempting to make the invention of Cole and McLaren part of the prior art. It was Cole and McLaren who showed the carbon dioxide art how to put the elements together into a new and patentable combination. This combination was not available at the time the invention was made and Cole and McLaren went entirely contrary to the teachings of the solidification art and particularly the teachings of Mr. Martin, the witness for appellees.

### **The Martin Alleged Prior Use.**

Appellees in their brief, pp. 51-62, discussed the Martin alleged prior use. Said alleged use was discussed at length in appellant's opening brief, pp. 42-68, incl. Appellees have not pointed out in their brief wherein the appellant has made any statement as to facts in its brief which is not borne out by the record and appellees have not cited any cases which are contrary to those cited by the appellant and to the effect that a prior use must be proven beyond a reasonable doubt.

In its brief the appellant stated on page 68 thereof that the Martin use either never took place or if it did it was an abandoned experiment. It is submitted that the record fully supports said statement and it is significant that the only reference in appellees' brief on the question of an

abandoned experiment is in the last paragraph on page 62. In order to support their contention that the Martin use was an abandoned experiment, appellees, in the face of the record, state that the Martin prior use was the foundation of a national industry. The record, which is quoted at length in appellant's opening brief, clearly shows that the Martin use was not used after July 1925 and was completely discarded thereafter and it, furthermore, shows that of the six machines which were allegedly built for Martin that only one was ever used and that it produced approximately twenty tons of ice during the entire period within which it was operated, which is the large number of tons referred to in appellees' brief. In the face of this record the only conclusion that this court can draw is that, if proved, the Martin use was merely an abandoned experiment. The statement that the Martin prior use was the foundation of a national industry nowhere appears in the decision of the court or in the findings. The Martin structure, as described by Martin and Hood, was inherently an increment press of continuous operation for extruding carbon dioxide. It had a fixed stroke plunger which was 8 inches short of the discharge end of the chamber and the testimony shows that they could not get the block out with the plunger but had to in effect fish it out. Whatever intermittent operations were done with this structure were entirely experimental and in an endeavor to make the structure work. The fact that it would not work is shown by the discarding of the machines. Appellant is unable to see how this court can hold that an abandoned machine which was so valueless that it was never even copied by anyone after it was thrown away could have been the foundation of a national industry.

### Aggregation.

Appellees, in discussing the question of aggregation, have quoted testimony of Dr. Jones which was developed by directing the questions to the snow tank operation where the press was separate from the tank. The fact that carbon dioxide could be pressed independent and distant from the structure in which the solid was formed has no bearing upon the question of aggregation. The vertical apparatus of Fig. 5 discloses a structure within which the solid is not exposed to the atmosphere or affected by temperature, where it is not tamped and where it falls by gravity to the bottom of the structure where it is thereafter pressed into blocks. The fact that these operations occur in one structure does not constitute aggregation in law. Appellant in its opening brief, pp. 96-101, has pointed out that the actions of the elements do not necessarily have to be simultaneous and have further pointed out that if the elements by their reciprocal influence upon each other perform additional functions and accomplish additional results, the union is a true combination. The vertical apparatus of Fig. 5 which is used by the appellees admittedly produces dense blocks of carbon dioxide and of commercial density and without exposure to the atmosphere and at a constant temperature. In said apparatus no rotary scrapers or other means are used to deposit the carbon dioxide in the bottom of the chamber or to scrape it from the vertical walls. The vertical apparatus of Fig. 5 is so constructed that unexpended gas may be returned to the system and without affecting



the pressing operation. In view of the additional functions and results which are accomplished by the use of the vertical apparatus of Fig. 5 and which are produced by the coaction of the elements thereof and which result in a more economical and efficient manufacture of the carbon dioxide, appellant is unable to follow the assertions of appellees that the claims constitute aggregation.

### Infringement.

Appellees have devoted approximately two pages to a discussion of infringement of the claims in issue. The only attempt which is made to avoid infringement of the apparatus claims is the contention that the appellees do not utilize a closed or sealed chamber. The admission is made, page 67, that only five per cent of the carbon dioxide fed into the chamber escaped therefrom, the remainder being returned to the system. There is no contention that air or other injurious gases ever entered the forming and pressing chamber of appellees' structure. The fact that the appellees may not use all of the advantages of the patented structure and let a small portion of the gas escape to the atmosphere because of the amount available from gas wells is immaterial upon the question of whether the claims in issue are infringed. (*Cf. Weiss v. R. Hoe & Co.*, 109 F. (2d) 722, 726.) If appellees desire to avoid infringement by allowing air to enter the chamber, they could have made the openings sufficiently large to insure that air would enter therein. The testimony is to the effect that the openings were of such a size that no air

would enter the chamber against the pressure of the outgoing gases.

The question of whether appellees' structures do or do not use an exhaustor is immaterial upon the question of infringement of the apparatus claims. Appellant in its opening brief, pp. 101-117, incl., discussed each and every element of appellees' structure and applied the same to the claims in issue and particularly to the typical claim 34 which specifically calls for a vertical apparatus. Appellees have made no attempt in discussing infringement to show wherein the portions of the record quoted by appellant was in any manner incorrect. The test of infringement as laid down in the leading case of *Burr v. Duryee*, 17 L. ed. 650, 658, is whether the infringing structure performs substantially the same function in substantially the same way to obtain substantially the same result. It is submitted that the record clearly shows that not only is the claimed infringing structure substantially the same as the vertical apparatus of Fig. 5 but it is almost a Chinese copy thereof. It performs identically the same function of solidifying and compressing carbon dioxide and in the same way and the result obtained is a dense block of commercial carbon dioxide.

Relative to the method claims, the record is clear that the structures of appellees were used for the purpose of producing solid carbon dioxide by use of the snow method. In so doing they used each and every step of claim 38. As in the apparatus claims, the appellees are endeavoring to escape infringement in the use of said snow method



by asserting that the chamber was not a closed chamber. Appellant is confident that this court will not enable the appellees to avoid infringement of the apparatus claims in issue or of claim 38 by such a contention.

Relative to appellees' operation by the triple point method, it is the contention of appellant that the step of shutting off the supply of liquefied gas to the chamber after a desired mass of the solid has been accumulated in the chamber is equivalent to the step of allowing liquid carbon dioxide in the chamber, shutting off the valve after there has been a sufficient accumulation of the liquid, and thereafter converting the liquid to solid by reduction of pressure.

Relative to claim 39, and as previously stated in our opening brief, this claim calls for maintaining a definite pressure in the closed chamber during formation and collection of the solid carbon dioxide therein. Admittedly the appellees maintain a definite pressure, *i. e.*, 60 pounds gauge pressure and above, during the formation and collection of the solid carbon dioxide in the chamber. It is only after the solid carbon dioxide is formed that the pressure is lowered below the triple point pressure of 60.4. That this is a definite pressure and is maintained in all of the triple point operations is shown by the testimony of the witness Wells, called on behalf of appellees, and by the various charts and records which are in evidence and which were produced by the witness Wells and have been referred to in our opening brief. It will be noted that in none of the apparatus claims or in method claim 38 is there any mention of a definite pressure to be maintained. The question of infringement of claim 39 has no bearing upon the question of infringement of the other claims in issue.

### Conclusion.

Appellant submits that the contentions made in its opening brief have not been in any manner disturbed by appellees and that, as stated in said brief, the record clearly supports a finding by this court that the claims in issue are valid in law and that the same are infringed by appellees' presses at Niland, California.

Respectfully submitted,

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